

## BY THE WAY—

## EXTRACTS FROM THE "LIFE OF CHARLES DARWIN."

"No pursuit . . . gave me so much pleasure or was followed with nearly so much eagerness as *collecting* beetles. . . . It seems, therefore, that a taste for collecting beetles is some indication of future success in life" (pp. 48, 49). "Another occupation was *collecting* animals of all classes, briefly describing and roughly dissecting; . . . but from *not* being able to *draw*, and *not* having *sufficient* anatomical knowledge, a great pile of MSS. which I made during the voyage (Beagle) has proved almost useless" (p. 62).

"I took much pains in *describing* *carefully* and *vividly* all that I had seen; and this was good practice. . . . The above serious, special studies were, however, of no importance compared with the *habit* of *energetic industry* and of *concentrated attention* which I then acquired. Everything about which I thought or read was made to bear directly on what I had seen, or was likely to see. . . . I feel sure that it was this training which has enabled me to do whatever I have done in science. . . . I discovered, though unconsciously and insensibly, that the pleasure of *observing* and *reasoning* was a much higher one than that of *skill* and *sport*" (p. 63).

"Therefore my success as a man of science . . . has been determined, as far as I can judge, by complex and diversified mental qualities and conditions. Of these the most important have been—the love of science, unbounded patience in long reflecting over any subject, industry in observing and collecting facts, and a fair share of invention as well as of common-sense. With such *moderate abilities* as I possess, it is truly surprising that I should have influenced to a considerable extent the belief of scientific men on some important points" (p. 107).

"My habits have been *methodical*, and this has been of not a little use for my particular line of work" (p. 106).

"Darwin was naturally awkward with his hands, and was unable to draw at all well. This he always regretted much, and he frequently urged the paramount necessity of a young naturalist making himself a good draughtsman" (p. 110).

"Much of his scientific reading was in German, and this was a great labour to him. . . . He learnt German simply by hammering away with a dictionary" (p. 126).

"One characteristic was his *respect for time*: he never forgot how precious it was. . . . He would often say that saving the minutes was the way to get work done. The same eager desire not to lose time was seen in his quick movements when at work. . . . He *saved a great deal of time* through *not*

*having to do* things twice. . . . He felt the experiment to be sacred however slight a one it was. Any experiment done was to be of some use. . . . His natural tendency was to use *simple* methods and few instruments. . . . He maintained that one ought always to see as much as possible with the simple before taking to the compound microscope" (pp. 144, 145).

"Mathematics was repugnant to me, chiefly from my not being able to see any meaning in the early steps of algebra. This impatience was very foolish, and in after years I have *deeply regretted* that I did not proceed far enough, at least to understand something of the great leading principles of mathematics,—for men thus endowed seem to have an extra sense" (p. 46).

"If I had to live my life again I would have made a rule to read some poetry and listen to some music at least once every week; for perhaps the parts of my brain now atrophied would thus have been kept active through use. The loss of these tastes is a loss of happiness, and may possibly be injurious to the intellect, and more probably to the moral character, by enfeebling the *emotional part of our nature*" (pp. 101, 102).

"If ever you catch quite a beginner, and want to give him a taste for botany, tell him to make a perfect list of some little field or wood. . . . It gives a really uncommon interest to the work having a nice little definite world to work on, instead of the awful abyss and immensity of all British plants" (II., p. 59).

"It often appears to me almost certain that the characters of the parents are photographed on the child, only by means of material atoms derived from each cell in both parents, and developed in the child" (III., p. 84).

"Judging from my own experience you will be astonished to find how the whole mental disposition of your children changes with advancing years. A young child, and the same when nearly grown, sometimes differ almost as a caterpillar or a butterfly" (III., p. 104).

*From a Mother's Note Book.—VERA.*

## PRIZES.

1. May we beg for a post-card from each of the essayists who wrote upon Wordsworth's "Ode," giving a vote in favour of one or other of the three essays now published? The post-card should have the name and address and the *nom de guerre* of the writer.

2. A Prize of *Half-a-Guinea* for a list of the twelve most beautiful and appropriate hymns, and,

3. A Prize of *Half-a-Guinea* for a list of the twelve most beautiful and appropriate poems, to be learned by children under twelve. Both hymns and poems should be put, so far as possible, in order of merit. Supposing the lists should be equally good, the prizes will be awarded to those which contain the largest number of hymns and poems to which other competitors have given a foremost place.

These competitions should be sent to the Editor, care of publishers, by the end of April.